<u>CLAIMS</u>

This listing of claims will replace all prior versions and listings of claims in the application.

1 – 156. (cancelled without prejudice)

157. (previously presented)  A computer readable medium having one or more non-transitory sequences of instructions tangibly stored therein, which when executed cause a processor in a computer to perform a series of steps, comprising:

preparing data from a plurality of enterprise systems and one or more external databases for processing;

measuring a plurality of risks using at least a portion of said data under a plurality of scenarios;

identifying one or more risk management activities based upon said risks;

calculating an amount of capital available for said risk management activities using at least a portion of said data; and

determining a combination of said risk management activities that optimizes aspects of an enterprise financial performance selected from the group consisting of market value, risk and combinations thereof within a constraint of the available capital

where the market value comprises one or more real options and where the risk comprises at least one contingent liability.

158. (previously presented) The computer readable medium of claim 157, wherein the plurality of scenarios consists of scenarios selected from the group consisting of normal, extreme and a combination thereof.

159. (previously presented) The computer readable medium of claim 157, wherein the market value further comprises one or more categories of value selected from the group consisting of current operation, market sentiment and combinations thereof.

160. (previously presented) The computer readable medium of claim 157, wherein the risk management activities are selected from the group consisting of establishing one or more risk management control systems, completing one or more risk transfer transactions and combinations thereof.

161. (previously presented) The computer readable medium of claim 160, wherein establishing each of the one or more risk management control systems further comprises identifying a risk

reduction activity and optionally establishing a method for implementing said activity in an automated fashion.

162. (previously presented) The computer readable medium of claim 160, wherein completing the one or more risk transfer transactions further comprises completing activities selected from the group consisting of insurance purchases, derivate transactions, and combinations thereof.

163. (currently amended) The computer readable medium of claim 157, wherein measuring the plurality of risks further comprises: developing a computational model of the market value by category of value, element of value and external factor ~~by completing a series of multivariate analyses in an automated fashion~~ and quantifying the plurality of risks by a category of value using said model ~~where the categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof~~ where the computational model of the market value by category of value, element of value and external factor is developed by learning from the data where learning from the data comprises:
using a plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact of each of one or more elements of value;
using the plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact each of one or more external factors;
learning which algorithm from a plurality of linear and nonlinear predictive model algorithms to include in the model for each of the one or more components of value in order to model a net contribution or impact of each of the one or more elements of value and each of the one or more external factors to a value of the component of value when using the selected data;
learning which model from a plurality of causal models is a best fit when modeling the contribution of the elements of value and the external factors to the value of each of the components of value when using the selected data;
learning if a clustering of the input data improves an accuracy of the component of value models;
learning a relative contribution of each of the elements of value to the value of each of the components of value,
learning a relative contribution of each of the elements of value to an enterprise value,
optionally learning a relative contribution of each of the elements of value to a value of one or more real options;
learning a relative contribution of each of the external factors to the value of each of the components of value,

learning a relative contribution of each of the external factors to the enterprise value;

learning if the enterprise value comprises a market sentiment value, and

optionally developing one or more real option models where developing said models comprises calculating a discount rate for each real option using data related to the elements of value that contribute to the enterprise value;

where the plurality of causal models are selected from the group consisting of Tetrad, LaGrange, Bayesian and path analysis and where the plurality of predictive models are selected from the group consisting of classification and regression tree; projection pursuit regression; generalized additive model (GAM), redundant regression network; neural network, multivariate adaptive regression splines; linear regression; and stepwise regression .

164. (currently amended) The computer readable medium of claim 157 ~~163~~, wherein the series of steps further comprise measuring the plurality of risks by element of value and external factor where the elements of value physically exist and are selected from the group consisting of ~~alliances,~~ brands, customers, employees, information technology, ~~partnerships,~~ processes, production equipment, vendors, and combinations thereof.

165. (previously presented) The computer readable medium of claim 157 that further supports an optimization of one or more aspects of financial performance selected from the group consisting of current operation value, real option value, market sentiment value and combinations thereof.

166. (previously presented) The computer readable medium of claim 157, wherein determining an optimal combination of risk management activities further comprises using an algorithm selected from the group consisting of quasi Monte Carlo, genetic algorithm, multi-criteria linear programming and linear programming.

167. (currently amended) The computer readable medium of claim 157, wherein the plurality of risks comprise one or more risks selected from the group consisting of event risks, volatility and contingent liabilities and a measured risk consists of an expected reduction in the market value where the expected reduction in value from each of the contingent liabilities is measured using a real option algorithm.

168. (previously presented) The computer readable medium of claim 157, wherein the enterprise physically exists and the market value further comprises at least one category of

value where a change in a value of said category of value is nonlinear and dependent upon at least two of one or more elements of value and one or more external factors and wherein a value of the contingent liability is dependent upon at least two of one or more elements of value and one or more external factors.

169. (currently amended) A risk management optimization system, comprising:

networked computers each with a processor having circuitry to execute instructions; a storage device available to each processor with one or more sequences of instructions stored therein, which when executed cause the processors to:

prepare data from a plurality of enterprise systems, the Internet, and one or more external databases for processing;

developing a model of an enterprise market value from said data,

measure a plurality of risks using at least a portion of said data under a plurality of scenarios with said model;

identify one or more risk management activities based upon said risks;

calculate an amount of capital available for said risk management activities using at least a portion of said data; and

determine a combination of said risk management activities that optimizes aspects of an enterprise financial performance selected from the group consisting of market value, risk and combinations thereof within a constraint of the available capital

where the market value comprises one or more categories of value where a change in a value of at least one of said categoryies of value is nonlinear and where the risk comprises at least one contingent liability.

170. (previously presented) The system of claim 169, wherein the plurality of scenarios are selected from the group consisting of normal, extreme and a combination thereof.

171. (previously presented) The system of claim 169, wherein the one or more categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof.

172. (previously presented) The system of claim 169, wherein the combination of risk management activities are selected from the group consisting of establishing one or more risk management control systems, completing one or more risk transfer transactions and combinations thereof.

173. (previously presented) The system of claim 172, wherein establishing each of the one or more risk management control systems further comprises identifying a risk reduction activity and optionally establishing a method for implementing said activity in an automated fashion.

174. (previously presented) The system of claim 172, wherein completing the one or more risk transfer transactions further comprises completing activities selected from the group consisting of insurance purchases, derivate transactions, and combinations thereof.

175. (currently amended) The system of claim 169, wherein measuring the plurality of risks further comprises: developing a computational model of the market value by category of value, element of value and external factor and quantifying a plurality of risks by a category of value using said model, where the categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof where the computational model of the market value by category of value, element of value and external factor is developed by learning from the data where learning from the data comprises:
using a plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact of each of one or more elements of value;
using the plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact each of one or more external factors;
learning which algorithm from a plurality of linear and nonlinear predictive model algorithms to include in the model for each of the one or more components of value in order to model a net contribution or impact of each of the one or more elements of value and each of the one or more external factors to a value of the component of value when using the selected data;
learning which model from a plurality of causal models is a best fit when modeling the contribution of the elements of value and the external factors to the value of each of the components of value when using the selected data;
learning if a clustering of the input data improves an accuracy of the component of value models;
learning a relative contribution of each of the elements of value to the value of each of the components of value,
learning a relative contribution of each of the elements of value to an enterprise value,
optionally learning a relative contribution of each of the elements of value to a value of one or more real options;
learning a relative contribution of each of the external factors to the value of each of the

components of value,

learning a relative contribution of each of the external factors to the enterprise value;

learning if the enterprise value comprises a market sentiment value, and

optionally calculating a discount rate for each of the real option models using data related to the elements of value that contribute to the enterprise value;

where the prepared data comprises a plurality of variables and a plurality of performance indicators, where the plurality of causal models comprise at least two models selected from the group consisting of Tetrad, LaGrange, Bayesian and path analysis, and where the plurality of linear and nonlinear predictive model algorithms are selected from the group consisting of classification and regression tree; projection pursuit regression; generalized additive model (GAM), redundant regression network; neural network, multivariate adaptive regression splines; linear regression; and stepwise regression.

176. (previously presented) The system of claim 169, wherein the enterprise physically exists and the enterprise market value comprises at least one category of value where a change in a value of said category of value is nonlinear and dependent upon at least two of one or more elements of value and one or more external factors and wherein a value of the contingent liability is dependent upon at least two of one or more elements of value and one or more external factors.

177. (currently amended) The system of claim 169, wherein measuring the plurality of risks further comprises measuring the risks by element of value and external factor where the elements of value physically exist and are selected from the group consisting of ~~alliances,~~ brands, customers, employees, information technology, ~~partnerships,~~ processes, production equipment, vendors, and combinations thereof.

178. (previously presented) The system of claim 169 that further supports an optimization of one or more aspects of financial performance selected from the group consisting of current operation value, real option value, market sentiment value and combinations thereof as well as an identification of one or more activities that are not related to risk management that optimize the market value or the combination of the market value and risk.

179. (previously presented) The system of claim 169, wherein determining an optimal combination of risk management activities further comprises using an algorithm selected from the group consisting of quasi Monte Carlo, genetic algorithm, multi-criteria mixed integer and

linear programming.

180. (currently amended) The system of claim 169, wherein the ~~the~~ plurality of risks are selected from the group consisting of ~~event risks,~~ contingent liabilities and volatility and the measured risks each consist of an expected reduction in the market value where the expected reduction in market value from the contingent liabilities is measured using a real option algorithm.

181. (previously presented) The system of claim 169, wherein preparing data from a plurality of enterprise systems and external databases for processing further comprises: converting and storing said data in accordance with a metadata mapping where the metadata consists of an xml or metadata coalition metadata standard.

182. (withdrawn) A computer readable medium having sequences of instructions stored therein, which when executed cause the processor in a computer to perform a data method, comprising: using metadata mapping to integrate a plurality of enterprise related data from a plurality of enterprise related systems in accordance with a metadata standard where a metadata standard is selected from the group consisting of xml and metadata coalition standard.

183. (withdrawn) The computer readable medium of claim 182 where a plurality of enterprise related systems further comprise transaction systems that are selected from the group consisting of advanced financial systems, basic financial systems, alliance management systems, brand management systems, customer relationship management systems, channel management systems, intellectual property management systems, process management systems, vendor management systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, enterprise resource planning systems (ERP), material requirement planning systems (MRP), scheduling systems, supply chain systems, quality control systems, purchasing systems, risk management systems, the Internet and combinations thereof.

184. (withdrawn) The computer readable medium of claim 182 wherein metadata mapping is guided by a metadata mapping table.

185. (withdrawn) The computer readable medium of claim 184 wherein a metadata mapping table is established using a metadata and conversion rules window.

186. (withdrawn) The computer readable medium of claim 182 where a data method further comprises storing a plurality of integrated data in one or more tables to support organization processing.

187. (withdrawn) The computer readable medium of claim 182 where a data method further comprises converting a plurality of enterprise related data from a plurality of organization related systems to a common schema at the time of integration.

188. (withdrawn) The computer readable medium of claim 187 where a common schema defines common attributes selected from the group consisting of categories of value, components of value, elements of value, enterprise designations, risks, time periods, units of measure and combinations thereof

189. (withdrawn) The computer readable medium of claim 187 where a data method further comprises storing a plurality of converted and integrated enterprise related data in one or more tables to support organization processing.

190. (withdrawn) The computer readable medium of claim 182 where a data method further comprises converting a plurality of enterprise related data from a plurality of organization related systems to a common xml schema at the time of integration.

191. (withdrawn) The computer readable medium of claim 190 where a common xml schema defines common attributes from the group consisting of categories of value, components of value, elements of value, enterprise designations, time periods, units of measure and combinations thereof

192. (withdrawn) The computer readable medium of claim 190 where a data method further comprises storing a plurality of converted and integrated enterprise related data in one or more tables to support organization processing.

193. (withdrawn) The computer readable medium of claim 182 wherein a plurality of enterprise related data further comprises transaction data.

194. (withdrawn) A data method, comprising:
    converting a plurality of enterprise related transaction data from a plurality of enterprise related systems to a common metadata standard
        where a metadata standard is selected from the group consisting of xml and metadata coalition standard.

195. (withdrawn) The method of claim 194 where a plurality of enterprise related systems are selected from the group consisting of advanced financial systems, basic financial systems, alliance management systems, brand management systems, customer relationship management systems, channel management systems, intellectual property management systems, process management systems, vendor management systems, operation management systems, sales management systems, human resource systems, accounts receivable systems, accounts payable systems, capital asset systems, inventory systems, invoicing systems, payroll systems, enterprise resource planning systems (ERP), material requirement planning systems (MRP), scheduling systems, supply chain systems, quality control systems, purchasing systems, risk management systems, the Internet and combinations thereof.

196. (withdrawn) The method of claim 194 where a metadata mapping table and a conversion rules table are used to support said conversions of data.

197. (withdrawn) The method of claim 196 wherein a metadata and conversion rules window is used to establish a metadata mapping table and a conversion rules table.

198. (withdrawn) The method of claim 194 wherein a metadata standard defines a common schema where said common schema identifies data designations from the group consisting of components of value, sub components of value, known value drivers, elements of value, sub elements of value, non-relevant attributes and combinations thereof.

199. (withdrawn) The method of claim 194 where a data method further comprises storing a plurality of converted data in one or more tables to support organization processing.

200. (withdrawn) The method of claim 199 where one axis of each of one or more tables is defined by data designations from the group consisting of components of value, sub components of value, known value drivers, elements of value, non-relevant attributes and combinations thereof.

201. (previously presented) An advanced management method, comprising:
   using a computer with a processor to complete at least one of the steps of:
      aggregating and preparing data from a plurality of enterprise related systems, one or more external databases and the Internet for processing,
      developing a model of an enterprise market value from said data,
      measuring a plurality of risks using the model of enterprise market value and at least a portion of said data under a plurality of scenarios,
      identifying one or more risk management activities based upon said risks;
      calculating an amount of capital available for said risk management activities using at least a portion of said data; and
      determining a combination of said risk management activities that optimizes aspects of an enterprise financial performance selected from the group consisting of the market value, the measured risks and combinations thereof within a constraint of the available capital
      where the market value comprises one or more categories of value where a change in a value of at least one of the categories of value is nonlinear and where the measured risks comprise one or more expected reductions in the market value where a change in the value of at least one of the expected reductions in market value is nonlinear.

202. (previously presented) The method of claim 201, wherein the steps further comprise identifying a combination of risk management activities that optimize one or more aspects of financial performance selected from the group consisting of current operation value, real option value, market sentiment value and combinations thereof.

203. (previously presented) The method of claim 201, wherein the one or more categories of value are selected from the group consisting of current operation, real option and market sentiment.

204. (previously presented) The method of claim 201, wherein the plurality of risks are selected from the group consisting of event risks, contingent liabilities and volatility and combinations

thereof and the measured risks each consist of an expected reduction in the market value where the expected reduction in market value from the contingent liabilities is measured using a real option algorithm.

205. (currently amended) The method of claim 201, wherein the plurality of scenarios are selected from the group consisting of normal, extreme and combinations thereof ~~where each of the scenarios comprise a forecast of a plurality of future values for a plurality of factors and indicators that have an impact on the market value~~.

206. (previously presented) The method of claim 201, wherein the one or more ~~a~~ risk management activities are selected from the group consisting of establishing one or more risk management control systems, completing one or more risk transfer transactions and combinations thereof.

207. (currently amended) The method of claim 201, wherein measuring the plurality of risks further comprises measuring the plurality of risks by element of value and external factor for each of the categories of value where the elements of value physically exist and are selected from the group consisting of ~~alliances,~~ brands, customers, employees, information technology, ~~partnerships,~~ processes, production equipment, vendors, and combinations thereof.

208. (currently amended) The method of claim 201, wherein the model of the enterprise market value identifies a contribution of one or more elements of value and one or more external factors to each of one or more categories of value, and wherein measuring the plurality of risks further comprises quantifying said risks by a category of value using said model, where ~~the one or more categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof~~ the model of the enterprise market value is developed by learning from the data where learning from the data comprises:
using a plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact of each of one or more elements of value;
using the plurality of predictive models and causal models to analyze and select a portion of the prepared data when modeling an impact each of one or more external factors;
learning which algorithm from a plurality of linear and nonlinear predictive model algorithms to include in the model for each of the one or more components of value in order to model a net contribution or impact of each of the one or more elements of value and each of the one or more

external factors to a value of the component of value when using the selected data;

learning which model from a plurality of causal models is a best fit when modeling the contribution of the elements of value and the external factors to the value of each of the components of value when using the selected data;

learning if a clustering of the input data improves an accuracy of the component of value models;

learning a relative contribution of each of the elements of value to the value of each of the components of value,

learning a relative contribution of each of the elements of value to an enterprise value,

optionally learning a relative contribution of each of the elements of value to a value of one or more real options;

learning a relative contribution of each of the external factors to the value of each of the components of value,

learning a relative contribution of each of the external factors to the enterprise value;

learning if the enterprise value comprises a market sentiment value, and

optionally calculating a discount rate for each of the real option models using data related to the elements of value that contribute to the enterprise value;

where the plurality of causal models comprise at least two models selected from the group consisting of Tetrad, LaGrange, Bayesian and path analysis, and where the plurality of linear and nonlinear predictive model algorithms are selected from the group consisting of classification and regression tree; projection pursuit regression; generalized additive model (GAM), redundant regression network; neural network, multivariate adaptive regression splines; linear regression; and stepwise regression.

209. (previously presented) The method of claim 201, wherein the enterprise physically exists and the market value comprises at least one category of value where a change in a value of said category of value is nonlinear and dependent upon at least two of one or more elements of value and one or more external factors and the risk comprises at least one expected reduction in value that is nonlinear and dependent upon at least two of one or more elements of value and one or more external factors.

210. (previously presented) A computer readable medium having a non-transitory sequence of instructions tangibly stored therein, which when executed causes at least one processor in a computer to perform a series of processing steps, comprising:

preparing data from a plurality of enterprise systems, the Internet and one or more external databases for processing;

developing a linear or nonlinear model of an enterprise value by learning from said data,

measuring a plurality of risks using the model of enterprise value under a plurality of scenarios;

identifying one or more risk management activities based upon said risks;

calculating an amount of capital available for said risk management activities using at least a portion of said data; and

determining a combination of said risk management activities that optimizes aspects of an enterprise financial performance selected from the group consisting of the enterprise value, the measured risks and combinations thereof within a constraint of the available capital.

211. (currently amended) The computer readable medium of claim 210, wherein ~~the enterprise value model consists of one or more category of value models where the categories of value are selected from the group consisting of current operation, real option, market sentiment and combinations thereof~~ learning from the data further comprises:

using a plurality of predictive models and causal models to analyze and select a portion of the prepared data as value drivers when modeling an impact of each of one or more elements of value;

using the plurality of predictive models and causal models to analyze and select a portion of the prepared data to use as factor value drivers when modeling an impact each of one or more external factors;

learning if a clustering of the input data improves an accuracy of one or more component of value models;

learning a relative contribution of each of the elements of value to a value of each of one or more components of value,

learning a relative contribution of each of the elements of value to the enterprise value,

optionally learning a relative contribution of each of the elements of value to a value of one or more real options;

learning a relative contribution of each of the external factors to the value of each of the components of value,

learning a relative contribution of each of the external factors to the enterprise value;

learning if the enterprise value comprises a market sentiment value, and

optionally developing one or more real option models where developing said models comprises calculating a discount rate for each real option using data related to the elements of value that

contribute to the enterprise value

where the plurality of different types of predictive models are selected from the group consisting of classification and regression tree; projection pursuit regression; generalized additive model (GAM), redundant regression network; neural network, multivariate adaptive regression splines; linear regression; and stepwise regression.

212. (previously presented) The computer readable medium of claim 210, wherein the one or more risk management activities are selected from the group consisting of establishing one or more risk management control systems, completing one or more risk transfer transactions and combinations thereof.

213. (previously presented) The computer readable medium of claim 212, wherein completing the one or more risk transfer transactions further comprises completing activities selected from the group consisting of insurance purchases, derivate transactions and combinations thereof.

214. (previously presented) The computer readable medium of claim 210, wherein the plurality of risks are selected from the group consisting of event risks, contingent liabilities, volatility and combinations thereof and the measured risks each consist of an expected reduction in the enterprise value where the expected reduction in enterprise value from the contingent liabilities is measured using a real option algorithm.

215. (previously presented) The computer readable medium of claim 210, wherein the series of steps further comprises measuring the plurality of risks by element of value and external factor where the elements of value physically exist and are selected from the group consisting of alliances, brands, customers, employees, information technology, partnerships, processes, production equipment, vendors and combinations thereof.

216. (previously presented) The computer readable medium of claim 210 that further supports an optimization of one or more aspects of financial performance selected from the group consisting of current operation value, real option value, market sentiment value and combinations thereof as well as an identification of one or more activities that are not related to risk management that optimize the market value or the combination of the market value and risk.

217. (previously presented) The computer readable medium of claim 210, wherein the

enterprise value changes in a nonlinear manner and the measured risks change in a nonlinear manner where the nonlinear change in the enterprise value comprises a change in a value selected from the group consisting of a nonlinear change in a value of a current operation, a nonlinear change in a value of a market sentiment category of value, a change in a value of one or more real options and combinations thereof, and where the nonlinear change in the measured risks comprises a change in an expected reduction in value caused by a change in an expected reduction in value selected from the group consisting of a nonlinear change in an expected reduction in value of a current operation, a nonlinear change in an expected reduction in value of a market sentiment category of value, a change in a value of one or more contingent liabilities and combinations thereof.

218. (previously presented) The computer readable medium of claim 210, wherein the enterprise value comprises at least one category of value where a change in a value of said category of value is nonlinear and dependent upon at least two of one or more elements of value and one or more external factors and the measured risks comprise at least one expected reduction in value that is dependent upon at least two of one or more elements of value and one or more external factors.

219. (currently amended) The computer readable medium of claim 210, wherein the plurality of scenarios consists of two or more scenarios selected from the group consisting of normal, extreme and a combination thereof ~~where a scenario comprises a forecast of a plurality of future values for a plurality of factors and indicators~~.